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## ON THE TREATMENT OF SUSPENDED ANIMATION IN NEW-BORN CHILDREN.

NOTES OF A LECTURE AT THE HARVARD MEDICAL SCHOOL.

BY CHARLES E. BUCKINGHAM, M. D.,

*Professor of Obstetrics.*

WITH some obstetricians, the condition of the new-born child, compared with that of the mother, is of secondary consequence. I confess it is so in my estimation. This is a matter which depends upon the religious views of different individuals, and of course is not to be here discussed. Both the mother and the child require attention, and you can oftentimes give directions for the benefit of the child while you are making the required pressure over the uterus which has just expelled it.

Sometimes the child cries lustily as soon as it is expelled. Sometimes it gasps feebly, with long intervals between its respirations, which may of themselves become more frequent and stronger, or less frequent and more feeble. It may come into the world blue and flabby, and without a visible sign of life. If there be beating of the umbilical cord, however, there will almost certainly be a gasp, and that gasp may be repeated; or if not repeated unaided, your assistance may restore the child to life. Even if there be no pulsation to be seen or to be felt, you may in some cases hear it by putting your ear over the heart. You need not trouble yourselves about a ligature upon the cord; make the child breathe. And for this end it is not worth while to spend time in trying the Marshall Hall method; you have a chest to deal with which has never been expanded, and a pair of lungs which have never been inflated. Send for a couple of pails of water, one cold and the other rather warmer than it would be comfortable to take an entire bath in. A child who has never breathed, if rapidly dipped in these alternately a few times, will often cry audibly. But you must not wait for the pails of water before trying other measures to make the child breathe; if you do, it will be just so much neglect. With a dry rag over your little finger, thoroughly wipe the mucus from the fauces; that operation alone will make some children cry. Take the child up in a dry towel, or a pocket-handkerchief if you have one at hand, or in anything which will keep it from slipping from your

grasp ; hold it with the scapulæ in the palm of your left hand, the finger and thumb embracing the occiput, which should be firmly pressed backwards ; the finger and thumb of the right hand should close its nostrils. Apply your mouth to that of the child and try to inflate its lungs ; you need not fear that you will blow too hard ; indeed, unless you place a moderately dry cloth between the child's mouth and your own, you will find it difficult to inflate at all. But why press the head forcibly backwards ? Because in so doing you close the passage of the œsophagus ; and should you neglect that precaution, you would find the stomach inflated instead of the lungs, and a new obstacle thus put in the way of the child's breathing, by your own carelessness.

You should inflate the lungs ten or fifteen times in a minute ; and the process should be continued as long as there is the slightest possibility of life. The occasional alternate dipping will help your efforts. In some cases, a rapid and more forcible pulsation of the heart is felt by you upon your very first insufflation, and this, as a rule, will be repeated and increased in strength with every succeeding attempt, until as you take your lips away you will each time see the child gasp, open its eyes, heave its chest, and at last cry. The color, which has been leaden and dull, becomes of a positive red. The points upon which you placed your fingers, before the operation, became white, and remained so long enough for you to count twenty or more ; but now the color returns more and more rapidly, and you will find, as the child's respirations become independent of your aid, that the color returns almost immediately on the removal of the pressure.

Be sure that all chance of life is gone before you stop your exertions ; I have known an infant, who was laid aside in a sheet as dead by one of our profession, to live to adult age. So long as the breathless child is cool, if pulsation exists even to a slight degree, life is still possible. Excess of heat to such a child will diminish its chances for life. Why, then, you may ask, do I dip it in hot water, as well as in cold, to make it breathe ? Simply as a stimulant to its skin. It is not to be left in the hot water an instant ; it is dipped in hot water for the same reason that I would spank it, or slap it with a wet towel, the object being to irritate its nervous system and make it cry.

If you will now simply wrap the resuscitated infant in a blanket, and leave him without washing or dressing or food for a few hours, he will be better off than if you weary him with further attentions.

## ON THE TREATMENT OF OPHTHALMIA OF NEW-BORN CHILDREN: A REPLY TO DR. WILLIAMS.

BY HASKET DERBY, M. D.

In a very practical and useful article on the ophthalmia of new-born children, published in the *JOURNAL* of January 28th, Dr. Williams takes occasion, while on the subject of treatment, to condemn the use of any solution or preparation of nitrate of silver. He admits that, if strict attention be paid to cleanliness, cases thus treated *may* perhaps do well. But the remedy he regards as a dangerous one, and liable to cause agonizing pain.

Such wholesale condemnation, coming from a surgeon of Dr. Williams's large experience, and from one who occupies, moreover, the official position of a teacher of ophthalmology, cannot be passed over in silence by those members of the profession who pin their faith on the practice which he reprobates. The affection of the eye under consideration occurs so frequently, and the consequences of its neglect or maltreatment are often so appalling, that any suggestions as to the proper course to be pursued, or the remedies to be employed, have an interest for the profession at large, into whose hands these cases generally fall. With all respect, therefore, for the sincerity of Dr. Williams's belief, I would state that he stands comparatively alone among ophthalmic surgeons in discarding the use of nitrate of silver in the ophthalmia of new-born children. The great majority regard it as their sheet-anchor. Witness the following quotations:—

"The principal remedy is the cauterization with nitrate of silver."<sup>1</sup>

"The beneficial effect of cauterizations is first manifested in a diminution of the purulent secretion. When regularly made, a profuse purulent secretion seldom resists the application of caustic."<sup>2</sup>

"Nowhere is the sovereign effect of cauterizations more brilliantly manifest than in the treatment of the purulent conjunctivitis of new-born children; by applying them with exact care we can almost invariably avoid dangerous corneal complications, and see this dreaded disease assume, on our hands, a relatively benignant character. But these cauterizations must be carefully made; indeed, in cases where swelling and secretion are very marked, it may sometimes be necessary to make them twice a day."<sup>3</sup>

"If the patient can be seen every day, or even more frequently, the mitigated nitrate of silver, in substance, should be used, as we can regulate and localize its effect far better than can be done if injections or collyria are employed."<sup>4</sup>

<sup>1</sup> Tetzner, *Compendium der Augenheilkunde*, S. 25.

<sup>2</sup> Schweigger, *Handbuch der speciellen Augenheilkunde*, S. 354.

<sup>3</sup> Wecker, *Études ophthalmologiques*, 1<sup>o</sup>me 1, page 63.

<sup>4</sup> Soelberg Wells, *A Treatise on Diseases of the Eye*, page 39.

I have purposely selected these four authors as exponents of the four leading European schools. The first represents the practice of Arlt, of Vienna, the Nestor of the teachers of the day, renowned not only for his dexterity as an operator, but for his intimate knowledge of conjunctival affections and rare skill in their treatment. The second gives the views of the school of Graefe. The author of the third holds the largest clinique in Paris at the present time. And, finally, Mr. Wells gives us the practice of Moorfields Ophthalmic Hospital, the largest in the world.

Having thus witnessed the dissent of the ophthalmic world at large from the views held by Dr. Williams, let us inquire into the circumstances under which nitrate of silver is generally used in this disease, and the form and manner of its application.

During the first days of the attack, while the lids are stiff and tender, and the discharge either absent or scanty and thin, cold applications are those best borne. Compresses dipped in ice-water and laid on the eyes, or frequent gentle sponging with water as cold as the child will endure, are our sole resource. But as soon as the purulent secretion commences, more energetic measures must be taken. The usual method of examining the eyes and of making the application is as follows. The nurse, or assistant, and the surgeon occupy chairs placed at right angles to each other. The former holds the child on the lap, its back to the surgeon, and gently lowers its head between his knees, which should be protected by a rubber sheet. The head is thus perfectly secured, and, the hands being held by the assistant, the feet may be left free. With a bit of soft sponge dipped in lukewarm water the lids are now thoroughly cleansed and separated, the thick secretion that wells from between them and covers the surface of the eyeball being entirely removed. The elevator may now be used for the careful inspection of the cornea, which can be examined at this time more advantageously than later. This done, the upper and lower lids are everted, as much as possible of their conjunctival surface being exposed. Being freed from secretion, a large camel's-hair brush, dipped in a solution of nitrate of silver of ten grains to an ounce of water, is passed over them, next dipped in cold water and applied several times more, the lids being then replaced. The pain, acute at first, soon subsides. During the remainder of the day the strict cleanliness, so justly insisted on by Dr. Williams, will alone need to be enforced, unless, indeed, the state of the cornea requires the instillation of atropine. Only in exceptional cases will the caustic application require to be repeated towards evening; never unless the slight pellicle formed after the morning's treatment has been thrown off. If now, in spite of thorough treatment of this nature, the disease advances, the swelling and discharge increasing, and the cornea becoming more involved, we must



have recourse to the stick of nitrate of silver fused with twice its bulk of nitrate of potash, the *lapis mitigatus*, Graefe's favorite remedy, and one so successful in his hands. This is brushed over the everted lids, and then at once washed off with free applications of cold water.

If this plan of treatment be carefully followed, its good effect is soon manifest; in many cases improvement is immediate. I contend that these are *not* dangerous remedies, but valuable and indeed almost indispensable means of effecting a cure, approved as such by general experience. True, they cause temporary acute pain, but this quickly subsides. Let it, moreover, be borne in mind that this supersedes all other treatment, except the strictest attention to cleanliness. Could the children speak, I feel sure they would loudly proclaim their preference for the single daily application of nitrate of silver over the injection of sulphate of zinc, or even alum, made much more frequently.

I do not hesitate to advise any surgeon who is in doubt as to which method to adopt, to take his next case of ophthalmia neonatorum in both eyes, treat one eye by the milder method and the other by the one here described, and be governed by the result.

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#### CLINICAL NOTES OF CASES OF RHEUMATISM.

BY R. T. EDES, M. D.,

Visiting Physician at Boston City Hospital.

THE following table presents a summary of sixteen cases of acute articular rheumatism treated with alkalies in large doses. The duration of the disease in these cases is reckoned from the occurrence of severe pains, redness and swelling of the joints, or of symptoms of sufficient severity to compel the patient to go to bed. Preliminary soreness and aching are not taken into the account.

These cases were all submitted to the alkaline treatment, the standing orders being that "Chambers's mixture" should be administered to every patient admitted on the south side with acute rheumatism, at short intervals, until the urine became alkaline, when it was to be diminished or suspended. Chambers's mixture contains acetate and carbonate of potassa, in the proportion of thirty grains of each to the ounce. The usual dose is half an ounce. A few of these cases call for some remarks beyond those given in the table. The "days to relief" usually means "to very distinct and decided relief of the pain," although, as will be noticed, it was in some cases much more than that.

CASE I. — Jane S. was a heavy, lymphatic Irishwoman, of whom it was remarked soon after her entrance that she would be enough to spoil anybody's statistics, which proved to be the case. The treatment

## CLINICAL NOTES OF CASES OF RHEUMATISM.

No.	Name.	Age.	Previous Sickness.	Days Sick before Admission.	Days to Relief.	Days in Hospital.	Complications, chiefly Cardiac, before Entrance.	Complications on Leaving.	Remarks.
1	Jane S.	40	Rheumatism, one year ago	6	Up and about.	105	None.	None	Discharged much relieved.
2	Geo O.	19	Rheumatism, seven years ago.	5	6	11	Slight systolic murmur at base to left of sternum.	None.	Discharged well.
3	Fanny R.	15		5	8	41	As in case 2; also some irregular palpitation and dyspnea.	Not noted.	Discharged well.
4	Allice M.	30	Rheumatism, ten years ago; intermittent.	3		22	None	None.	Discharged well.
5	Isaac L.	21		6	3	29	None.	None.	Discharged well.
6	Kate T.	24	Typhoid, one year ago.	5		39	Systolic murmur, most distinct at base but audible at apex.	Systolic murmur more distinct at apex.	Discharged relieved.
7	Bridget M.	20	Rheumatism, one year ago.	8		10	Says she has had palpitation.	Not noted.	Discharged well.
8	Otharline R.	40	Cough, all winter.	4		11	Pain in left side. A little dullness at left base.	Hart's sounds faint, but no murmur.	Discharged against advice, and not relieved. Died.
9	John D. B.	25		14	2	7	Prolonged systolic murmur at apex.	Same as on entrance.	Discharged well.
10	Chas F. I.	23	"Fever," four years ago.	30	1	30	Systolic murmur at apex	Same as on entrance	Discharged relieved.
11	John H.	17	Rheumatism, five years ago	4			Loud pericardial friction sounds. After two days, systolic murmur at apex heard.	Pericardial sounds disappeared, for a long time before discharge upon books.	Acted as assistant in ward
12	Patrick D.	22	Rheumatism, four years ago	7		10	None.	None.	Discharged well.
13	Courtney M.	25	Rheumatism, six and two years ago.	2	6	35	Slight roll or rub, with first round.	Nothing noted.	Discharged well.
14	Thos. J. R.	17		6	Up and about.	14	Plastole murmur, second right intercostal space. Systolic murmur outside nipple.	Slight murmur at apex.	Discharged well.
15	Michael W.	17				4	Systolic murmur at apex.	Not noted.	Discharged well.
16	Michael K.	16		4	5	37	Very slight systolic murmur at left of sternum.	After nine days, sounds loud but normal.	Discharged relieved.

consisted of opiates, quinia, and iodide of potassium, as well as of alkalies, which were omitted and resumed several times.

CASE III. — There was no reason to suspect any organic disease of the heart.

CASE VI. — Kate T. returned to the hospital after about four weeks, complaining of some pain in the joints. She was then treated with iron and digitalis.

CASE VII. — Catherine R., two weeks before she entered, had a chill and a sharp pain in her left side, with frequent and painful cough. The time given in the table (four days) is that during which the joints were much more painful and swollen. After about ten days in the hospital, this patient became delirious, and the temperature rose to 101°. She is said to have died, after leaving the hospital contrary to advice. It is probable that pleurisy was the condition when she was first attacked, and a pericarditis beginning either at that time or subsequently would perhaps account as well as any theory for the course of the disease, although there was no symptom to indicate it positively, except the faintness of the heart's sounds. Percussion and auscultation, especially of the back, could not be very thoroughly carried out.

CASE XI. — Here the pericardial friction sounds disappeared at some time between the fourteenth and the eighteenth day after entrance. Pain in the cardiac region continued longer. She made quite an active assistant in the ward, notwithstanding the endocardial (mitral) lesion.

CASE XV. — Michael W. was a young Jew, who entered the hospital as rheumatic, though complaining of nothing but cold feet, which being relieved, he was discharged. His second entrance, a fortnight afterward, when the symptoms were more decided, is that which is recorded in the table.

The murmurs in Cases II., III., and XVI. were undoubtedly merely anæmic.

The following cases of pericarditis cannot properly be included in the above list: —

Edward K., aged sixteen, entered April 20th. Five weeks ago he had pain in the knees, but kept at work for a week; then followed chill and pain in other joints, and he was sick in bed two weeks; a week ago he went to work, with some pain. Two days ago there was sharp pain in left chest, dyspnœa, and palpitation. He now has loud friction sound over the whole heart. Respiration 42. Pulse 135. Temperature 102.8°. He has some pain in the knee, but the joints are not much swollen or tender. Blister and Chambers's mixture were ordered. In four days the friction sound extended over a smaller area. On the 25th he slept better. On the 27th the area of cardiac dullness was much increased. After this, he was treated with tonics, cathartics, digitalis, and mild counter-irritation. The friction sound disappeared, but a strong

systolic murmur remained. He got fat, looked comfortable, and went out relieved.

Lizzie B., aged nineteen, entered hospital June 3d. She was pale, and wore an anxious, frightened look. She told a story of having been enticed into a house of ill-fame, where she was abused, jumped upon, and pounded. This was probably false. She had red and excoriated patches of irritated skin on the nates and inside of thighs. The vulva was red and swollen, with a purulent secretion.

June 7th. Has complained of pain in the side for two days (supposed to be owing to bruises). Felt cold last night. Had some incontinence of urine. Breathing shallow and rapid. Pulse 100. Loud friction sound over heart. Poultice and Chambers's mixture ordered.

June 8th. In addition, some pain in small joints of both hands. Cotton jacket and cotton batting to joints.

June 10th. Friction sound remains. Has pain in knee, but less in hands. Has been passing water in bed for last three days. Has considerable cough, but no additional physical signs.

June 13th. Heart sounds at apex normal. Friction sound at base. Area of heart's dullness enlarged.

On the 18th of June her temperature was noted at  $103^{\circ}$ , and June 19th she died.

Wm. P., aged twenty two, born in the Shetland Islands, entered the hospital February 25th. Two weeks before, his feet and knees were red and swollen. Four days before, there was an uneasy feeling about the heart, with palpitation. There was roughening of first sound. The treatment consisted of iron, iodide of potassium, and cod-liver oil.

April 1st. He was sitting up, looking feeble and anæmic, complaining of some, but not severe pain. Tonics were continued.

April 13th. Dyspnœa, with pain in chest, last night. At apex, loud murmur, replacing first sound, heard outside of nipple, where, also, impulse is strongly felt. Pulsations are irregular, with an occasional thrill. At level of third rib, both sounds are distinct.

April 27th. A second attack of dyspnœa led to another physical exploration, which discovered a superficial friction sound.

April 31st. Several sounds were noted, one along left edge of sternum, rough. Soft systolic murmur at apex (probably that of April 13th). Another (rough) with second sound.

May 8th. Impulse very strong and irregular. Friction sound has disappeared. Area of heart's dullness considerably increased, extending an inch and a half outside of nipple. Apex beat in fifth intercostal space.

May 11th. Died.

## RECENT PROGRESS IN OBSTETRICS AND GYNÆCOLOGY.

BY W. L. RICHARDSON, M. D.

## OBSTETRICS.

*Chloroform as an Anæsthetic.* — Dr. Zweifel reports<sup>1</sup> the results of some experiments which he made, with a view of ascertaining the effect on the child in utero of chloroform administered to the mother. He invariably found that chloroform was present in the urine of children whose mothers had been under the influence of chloroform during parturition, and also in the placenta. Dr. Zweifel questions whether the administration of chloroform may not be found to have a very deleterious effect on the fœtus in utero. Not unfrequently children are born asphyxiated under such circumstances. It is also very noticeable that many children suffer, soon after birth, from jaundice, when the mother has been under the influence of chloroform during her labor.

*Uterine Souffle after Confinement.* — M. Bailly reports<sup>2</sup> some interesting facts which he has obtained from a careful examination of seventy-eight women. A bruit was discoverable sixty-eight times. In the large majority of cases the tone was soft, liquid, and prolonged. It was always intermittent, the duration being longer than the pause. The intensity about equalled the souffle heard between the fourth and fifth months of pregnancy. The larger the uterus, the louder the sound. Three or four times it was as loud on the morrow of the confinement as at the end of pregnancy. The sound was generally heard over the sides or over the lower half of the uterus, rarely over the superior half. It predominates on the left side. The maximum time during which the bruit was heard after delivery was one hundred and thirty-eight hours; the minimum, ten hours; the mean, sixty-three hours. The uterine contractions, the fœtal death occurring in utero long previous to the delivery, and profuse hæmorrhages, all tend to influence the force and duration of the souffle. The first of these circumstances enfeebles the sound, the last two increase its tone. The origin of the sound is the passage of blood from the smaller into the larger vessels or sinuses.

*Uterine Thermometry.* — Dr. Schlesinger reports<sup>3</sup> the following results of a long series of investigations made with a view of ascertaining if it was possible, by means of the thermometer, to diagnosticate pregnancy during the earlier months. The temperature of the uterine cavity is higher than that of the vagina. The pregnant uterus has a higher temperature than the non-pregnant.

Recognizing the fact that the temperature of the uterus, both in the

<sup>1</sup> Berliner klinische Wochenschrift, May 25, 1874.

<sup>2</sup> Archives de Tocologie, 1874; London Medical Record, October 21, 1874.

<sup>3</sup> Allgemeine Zeitung, March 10, 1874.

pregnant and in the non-pregnant condition, is higher than that of the vagina, Schroeder considers that the death of the fœtus may be inferred in those cases in which the difference between the vaginal and uterine temperature is either very slight or imperceptible; since, when the fœtus dies, it abstracts some heat from the uterus itself, and thus equalizes the temperature of the uterus and vagina.

*Induction of Premature Labor.*—Dr. J. G. Swayne reports<sup>1</sup> twenty cases in which he induced premature labor; seventeen were multiparæ and three primiparæ. In one case the operation was performed three times, and in three cases twice on the same subject. Fourteen of the operations were performed anticipatory of craniotomy, owing to a deformed pelvis; three times the labor was induced owing to obstinate vomiting, and three times for albuminuria threatening convulsions. Three of the mothers died, two being *in extremis* when the operation was performed. Eleven of the infants were still-born, and two of those born alive subsequently died. In seventeen cases labor was induced by a gradual dilatation of the os uteri by means of carbolized sponge tents. This method of procedure Dr. Swayne recommends as more nearly resembling the natural processes than any other. The time occupied in bringing on the labor in these cases varied from six hours to sixteen days.

In cases where prompt delivery is necessary, the use of Dr. Barnes's elastic bags is more sure and rapid in accomplishing the desired object. In all other cases, Dr. Swayne considers a gradual dilatation a far safer method of procedure.

Prof. Carl Braun opposes<sup>2</sup> the use of sponge tents as being often productive of most serious if not fatal results. Parametritis and pyæmic symptoms frequently arise from the absorption of the foul discharges which always follow their use. He advises in preference to all other plans the method, now universally adopted in Vienna, of the introduction of a pointed quill by means of a uterine sound passed through a small opening made in the side. This being introduced, the sound is withdrawn, and the membranes ruptured by the quill. The amniotic fluid drains away, and, labor pains soon beginning, the delivery is usually effected within twelve hours.

*Rigor following Delivery.*—Dr. Pfannkuch offers<sup>3</sup> the following explanation of the rigor which is so frequently observed to follow the birth of a child. According to experiment, the fœtal temperature has been shown to be nine tenths of a degree higher than that of the mother. The maternal temperature, however, being unaltered, it is evident that the pregnant woman must be producing less warmth than the non-pregnant. When the fœtal source of heat is removed by the birth of the

<sup>1</sup> British Medical Journal, August 8, 1874.

<sup>2</sup> Philadelphia Medical Times, January 23, 1875.

<sup>3</sup> Archiv für Gynækologie, iv. 2.



child, there is produced at once a disproportion between the amount of heat produced and that given off. The rigor is caused, therefore, by the efforts made by nature to establish an equilibrium.

The same rigors are frequently noticed when the child dies during pregnancy. In several cases which Dr. Pfannkuch has recently seen, where the mother gave birth to a dead child, no rigors followed the birth; and this would serve to strengthen the theory by which this observer endeavors to explain a symptom so frequently noticed by accoucheurs.

*Puerperal Fever.* — In the address in obstetrics, delivered at the last annual meeting of the British Medical Association,<sup>1</sup> Dr. J. Matthews Duncan stated that it was his belief that nearly one in every one hundred women, delivered in Great Britain at or near the full time, died in parturition or before the puerperal state and its effects had passed away. In addition to this startling mortality, parturition brings with it a vast amount of disease and suffering which does not end fatally. By far the largest number of deaths are due to puerperal pyæmia, a term which Dr. Duncan would substitute for the erroneous one of puerperal fever, since there is nothing essentially puerperal known in it, nor anything of the nature of a fever as that term is generally understood. All evidence brings the disease into the closest alliance or identity with surgical pyæmia. It is a disease always present; but never has it been shown to possess an epidemic character. It varies in its ravages just as pneumonia does, but in a very different manner from what is found to be the case with cholera or scarlatina. The puerperal woman presents a most favorable nidus for the reception of morbid material in her contused and lacerated passages, and patients suffering from puerperal pyæmia, or any allied diseases, offer this morbid material in its most potent essence. No other well-demonstrated communicability has ever been proven, as tending to show that this disease is either contagious or infectious. The same laws of pathology govern lying-in hospitals as govern all hospitals, and it is absurd to claim that any greater danger exists for patients in one than for those in the other. Beyond question, pyæmia is a septic disease, and puerperal pyæmia may be almost if not altogether prevented by the application to delivery of a practice based on antiseptic principles.

In a carefully prepared treatise on Erysipelas and Puerperal Fever, recently published, the author, Dr. Thomas C. Minor, gives in detail an account of both diseases as they prevailed sporadically in the United States during the year 1870, and also the history of a puerperal fever epidemic observed in the southwestern part of Ohio in the winter of 1872. The facts, as given by Dr. Minor, appear to establish the fact that erysipelas and puerperal fever seem to prevail together throughout the

<sup>1</sup> *Obstetrical Journal of Great Britain*, September, 1874.

United States, and that any marked increase of one disease in any particular locality is always followed by a corresponding increase of the other. Infants die of erysipelas shortly after or before their mothers die of puerperal disease.

M. Chauffard<sup>1</sup> considers that any disease which produces morbid discharges may give rise, in women recently confined, to puerperal fever. During his service at the Neckar Hospital, he has frequently remarked that the opening of an abscess, or the presence in the wards of purulent ophthalmia or erysipelas, is sure to be followed in a short time by puerperal troubles of greater or less severity.

*Absence of the Fœtal Pulse during Extraction by the Feet.* — Professor Dohen, of Marburg, reports<sup>2</sup> two cases where, during an extraction by the feet, the fœtal pulse ceased for a considerable length of time, and yet with no fatal result to the child. In both cases the pelvis was contracted, and the pulse was distinctly felt to cease beating as the after-coming head descended into the pelvis. In the first case the cardiac pulsations were suspended for at least two minutes, and in the second case for more than three minutes. In the first case the baby, a girl, was reanimated in a warm bath after about a quarter of an hour's effort; but in the second case the measures to resuscitate the infant, a boy, were continued for half an hour before the frequency of the inspiratory and pulse movements became normal.

Professor Dohen considers that the arrest of the heart in these two cases was due to the compression of the brain and irritation of the pneumogastric. In cases where the arrest of the heart's beat is due to asphyxia there is but little hope of saving the child's life, but where the action of the pulse is slackened or arrested by compression of the brain, a rapid extraction of the head will usually be sufficient to save the life of the infant.

These views are strictly in accordance with the theory of Leyden,<sup>3</sup> who has shown that the compression of the brain which slackens the heart's beats may also completely arrest them, and that this action is produced by the help of the pneumogastric.

*The Tensile Strength of the Fœtus.* — Dr. J. Matthews Duncan reports<sup>4</sup> a series of experiments undertaken to ascertain the amount of force which can safely be applied in effecting the delivery of a child. The body of a new-born baby was passed through an aperture so cut in hard wood as to represent the brim of a contracted pelvis. Above the ankle, an apparatus was applied by which weights could be suspended. The amount of the weights used was to be gradually increased until the

<sup>1</sup> Gazette Hebdomadaire, October 16, 1874.

<sup>2</sup> Obstetrical Journal of Great Britain and Ireland, January, 1875, from Archives de Tocologie, October, 1874.

<sup>3</sup> Virchow's Archiv, xxxvii. 4.

<sup>4</sup> British Medical Journal, December 19, 1874.

body of the child was dissevered. In order to bring the experiment into conditions analogous with those of labor, the weights were allowed to operate for only half a minute at a time. In each experiment the separation took place at the neck. The decapitating force varied from ninety-one to one hundred and forty-one pounds, giving, therefore, an average of about one hundred and twenty pounds.

The life of the child is, of course, compromised before the limit of the tensile strength of the fœtus is reached, since the destruction of the spinal column occurs under the application of a force considerably less than is required to produce decapitation.

In these experiments it was found that the cervical part of the vertebral column first gave way, allowing the dissevered vertebræ to become widely separated before actual decapitation took place. While one hundred and five pounds sufficed to separate the cervical vertebræ, an addition of fifteen pounds was required to decapitate. In all cases the vertebral column yielded with a jerk, followed by a marked elongation of the fetal body. This fact is therefore one of great importance to the accoucheur if he wishes to avoid decapitation. It was further found that a single limb, so far as strength was concerned, sufficed to effect decapitation by traction.

These experiments are of great value as regards the force that may safely be employed in podalic extraction; but it was found a far more difficult problem to ascertain the power that may safely be applied in extracting a child with the forceps. In this latter case, a far greater force can be exerted than in the former. It has been proven that it is possible to apply the forceps to a foetal head at the brim of an actual pelvis so as to defy the utmost efforts of the most powerful accoucheur. The foetal head is firm enough to resist a dragging force far greater than can be used in podalic extraction.

(To be concluded.)

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## PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M. D., SECRETARY.

DECEMBER 28, 1874. *Ovarian Cyst.*—A fine specimen of a monocyte holding five gallons of fluid was exhibited by DR. W. G. WHEELER, of Chelsea, who related the following history of the case. The patient was a feeble woman, fifty-four years of age, who had been delivered of five still-born children. She was small in size, of medium height, and much emaciated. She said that the abdomen had been gradually enlarging during the last five years, and now (December 17, 1874) measured fifty-two inches. There was a distinct wave on percussion. Resonance was found in both flanks but not in front. The

patient has never experienced much pain, although the mechanical distention during the last two years has been a source of distress. The stomach and bladder proved troublesome at times; the uterus was healthy and movable with but little displacement; there was no œdema of the lower extremities or any evidence of disease in other parts of the body. After a few days' consideration the patient desired to take the chances of an operation for the removal of the cyst.

On the 25th of December, at 12 M., the operation was performed. The patient, being feeble, took some beef tea, and at a later hour, just before etherization, took a table-spoonful of brandy. An incision two inches long in the median line through the thin abdominal walls exposed the firm, shining cyst. There were no adhesions, as the sound swept freely in every direction. The tumor was punctured with Spencer Wells's trocar, and forty pounds of straw-colored fluid were evacuated. The cyst was drawn without difficulty through the slight opening; a small pedicle was clamped, and divided with scissors; the wound was then closed by five wire sutures. The patient took the ether kindly and recovered from it without excitement or vomiting; she complained of little or no pain in the abdomen, feeling only a sensation of general weakness; the surface of the body was cool. Warm dry sand-bags were applied to the extremities, with brandy and small fragments of ice by the mouth. The patient slept quietly and at short intervals. Reaction followed in about two hours after the operation, and small quantities of beef tea were swallowed, and the same with brandy was given per rectum. The following night was passed in comfort, with sleep at intervals; pain was not sufficient to require an opiate.

The next morning there was but little abdominal pain or tenderness, and no tympanites; the kidneys acted freely, the bladder being evacuated every three hours.

The second day the pulse rose to 120 and the temperature to about 101°, the respiration being 26; the color and expression remained good; during the day the patient took a fair amount of beef tea, milk, ice, and brandy; as night approached there was some restlessness, with a slight acceleration of pulse; temperature rose gradually to 102.5°; the breathing was much quickened. A moderate dose of morphine was taken, which gave quiet and some sleep at short intervals. Toward morning the patient awoke with acute pain in the right side, extending up under the scapula. There was some difficulty in breathing, with anxiety of countenance, and the pulse began to flag. A marked change soon followed. Stimulants were accordingly pushed, with the addition of quinine, ammonia, and camphor by the mouth and by the rectum; but the patient sank, apparently from exhaustion. No autopsy was permitted.

Dr. Wheeler believed this case presented a few interesting questions of a practical nature. What was the cause and significance of the pain in the shoulder? It seemed to be the first indication that some change for the worse was coming. A second question is whether from the benign character and the gradual development of this cyst, an operation two or three years earlier would not have given her a better chance of recovery. The operation is generally delayed till the golden hour has passed. Many physicians, as well as most patients, consider ovariectomy as the "forlorn hope." Would not Ameri-

can statistics in this department show better results if patients were presented at an earlier stage to the ovariologist? Then other elements could come into the calculation and serve to fix the best time for operation; for instance, polycystic growths are more rapid in their course, more liable to contract adhesions, as well as to break down the general health.

*Molluscum Fibrosum.* — DR. GREENOUGH showed a pedunculated tumor, about the size and shape of a large grape, which he had removed from the shoulder of a young man. The patient had noticed the existence of the growth for six or seven years, but could not say that it had not been there before. It had doubled in size in the last year and was beginning to be a source of annoyance. Dr. Greenough said that this was a very different thing from the molluscum contagiosum, which was an affection of the sebaceous glands, while the tumor in question was simply an hypertrophy of the subcutaneous cellular and fibrous tissues. With regard to the contagiousness of molluscum contagiosum, he said that, although it seemed incredible, he had noticed that all the cases which had come under his observation at the Boston Dispensary had come in groups of two or three from the same family.

JANUARY 11 1875. — *Malignant Disease of the Œsophagus.* — DR. JACKSON showed the specimen, which he had received from Dr. Ham, of Dover. Three months ago the symptoms became severe, and from that time the patient could not swallow solid food, though liquids were swallowed till the last. The voice was unaffected, but the respiration became difficult before death, and sometimes there was a feeling of suffocation.

The disease was situated at the upper part of the tube, was three or four inches in extent, and involved a large part of the circumference, but the calibre was not diminished. The anterior portion of the Œsophagus being mostly affected, the disease had extended through and appeared to some extent upon the inside of the trachea, but it had not gone on to ulceration. The ulceration of the Œsophagus was irregular in its outline, but defined, penetrating through to the subjacent tissues, and at the upper part almost to the cartilages of the larynx; in its general appearance showing those characters of malignancy that are often seen but are not easily described.

DR. FITZ reported concerning the histological nature of the tumor. The growth, mainly seated in the deeper layers of the Œsophagus and trachea, was composed of spindle cells with but little granular and fibrillary intercellular substance. The Œsophageal surface over the lower portion of the tumor was extensively ulcerated, while that upon the upper portion, behind the larynx, presented clusters of large papillæ, one, just below the arytenoid cartilages, forming a fungous excrescence three quarters of an inch in diameter and one quarter of an inch in depth. The papillæ were large and rich in spindle cells. The growth would therefore be considered as a combination of medullary sarcoma and papilloma.

DR. JACKSON remarked upon these affections of the Œsophagus as not at all rare, and upon the frequency with which the trachea is involved. Scarcely any two are alike, and yet they bear a certain general resemblance to each other. Although generally at the upper part of the tube, they are sometimes lower down, and are very often mistaken for cases of simple stricture. Of this last dis-

case Dr. Jackson had met with but a single case, post-mortem; the disease, as suggested by some members of the society, not proving fatal in this stage, but taking on a malignant character subsequently. He believed, however, that most of the cases that he had seen were malignant from the commencement; some years ago one of our best diagnosticians reported to the society a case of several years' duration, and which he felt quite sure was one of simple stricture; but within two weeks the patient died, and, on examination, Dr. Jackson found the disease to be malignant. Another case was that of a man who used to go to the hospital to have a probang passed for stricture of the lower part of the œsophagus. He at last died rather suddenly from intestinal hæmorrhage, and Dr. Jackson found a limited but well-marked encephaloid disease not far above the cardiac orifice of the stomach; and that was the source of the hæmorrhage. The patient used to be much relieved by the probang, which probably broke down the soft encephaloid growth, thus for a time clearing the passage.

DR. CABOT said that he had had a case that had been entirely cured by one thorough dilatation with a probang. In answer to a question, he said that the patient was not a female.

DR. WARE said he remembered a case in which he had used a probang with relief, two or three times a year, for over twenty years. During the last year the disease apparently became malignant, and resulted fatally. Another case did well for two or three years, and then passed from his observation. He also spoke of a third case, where the patient, a lady, had for the last thirty years passed a probang herself.

DR. H. K. OLIVER said that he knew a lady seventy-nine years old who had not been able to swallow solid food since her sixteenth year. Otherwise she was in perfect health. In former years, persistent use had been made of the probang, but with only slight and temporary relief.

*An Anomalous Ligament.* — DR. BEACH showed a preparation and photograph which displayed a ligament observed by him while dissecting a head and neck for demonstrating the ligamentous structures of the occiput and upper vertebræ. It was a firm, tendinous band (A) extending transversely across



the foramen magnum, in front of the vertical portion of the crucial ligament, and inserted on each side of the foramen immediately above and entirely separate from the insertions of the check ligaments. Its length was one inch, its width at the middle three sixteenths of an inch, and at the insertions one eighth of an inch. The appearance of the ligament differed from that of its neighbors in being white, shining, and tendinous, while they were of a dull pinkish color. The check ligaments (B) were smaller than usual, and although the band described

was not attached to the odontoid process of the axis, as is usual with accessory check ligaments, its use seemed to be to prevent that process from being displaced backward upon the spinal cord, when the head was strongly flexed. During flexion or extension of the head, the vertical portion of the crucial ligament (C) played over the smooth surface of the ligament above



mentioned (A). Dr. Beach had been unable to find a description of the ligament in any anatomical work to which he had access, and he had examined some of the lower animals with reference to the structure, but without success.

*Pott's Disease.* — DR. TARBELL presented a specimen of carious vertebrae which he thought of interest, in connection with its history, as illustrating the course of Pott's disease in a thoroughly scrofulous patient. The specimen was obtained through the courtesy of Dr. Willis, of Waltham, in whose practice the case occurred.

The patient was a feeble-looking boy, two years old, with a history of tuberculous antecedents and always delicate health. Six months ago there was found a very slight prominence of the spinous process of one vertebra in the lower dorsal region; there was no knowledge of any antecedent injury. The patient had also the rational signs of serious trouble in the lungs, though physical examination revealed nothing important. Under tonic treatment the pulmonary symptoms subsided, but the spinal symptoms increased slowly, and it had just been decided to have apparatus applied for the support of the weakened vertebrae, when the child was seized with tubercular meningitis and died in about two weeks.

At the autopsy, a single cretaceous mass about the size of a filbert was found at the apex of the right lung, and was not surrounded by signs of recent inflammation. The pia mater was in several portions thickly studded with small white tubercular deposits, not so large as the head of a pin. The ventricles of the brain contained three or four ounces of fluid.

The spinal disease, of which the specimen was exhibited, proved to be an almost total destruction of the body of the first lumbar vertebra. The last dorsal vertebra was also seriously affected, and the intervening cartilage had wholly disappeared. There was a small abscess, containing perhaps a teaspoonful of thick pus, burrowing its way down the right psoas muscle. The ligaments remaining formed a hinge upon which the upper and lower portions of the body could move freely. There had been no paralysis of the legs, nor much pain, and it seemed quite wonderful that there could be so great a loss of bone with so little external deformity. Although the disease had existed eight months, and probably much longer, there was not the slightest sign of any attempt on the part of nature to repair the bone. This was the point of interest, and a practical one, as regards prognosis and treatment. In most specimens of Pott's disease of traumatic origin (and Dr. Tarbell expressed his belief that a large majority of all these cases could be traced directly to injury) the process of repair by ankylosis could be seen going on. About one year ago, Dr. Tarbell exhibited to the society a specimen where the patient had attributed his disease to a severe fall. The patient having died of an intercurrent pneumonia some years after the injury, the bodies of the vertebrae were seen to be held firmly by new bone thrown out along their sides, although the carious process had not yet wholly stopped.

*Entire Removal of the Scalp by Machinery.* — DR. WARREN reported the case and presented two photographs to the society, one showing the condition of the patient a few weeks after the injury, the second taken two years later. The patient, M. N., a girl sixteen years of age, was employed in a shoe-shop at

Stoneham, Mass. While watching a belt on the morning of September 6, 1872, her hair, which hung loosely about the shoulders, was caught in a rapidly revolving shaft, and the entire scalp, including the skin of the forehead, upper lids, and a portion of the right cheek, was torn instantly from the head. The scalp was replaced and stitched in position by Drs. Cowdrey and Brown, and shortly afterward she was removed to the Massachusetts General Hospital. There was little or no hemorrhage at the time of the accident, and but little constitutional disturbance subsequently, considering the severity of the injury. During the first three weeks the scalp came away piecemeal, and revealed a healthy granulating surface extending from the middle of the bridge of the nose to a point one inch below the occipital protuberance, and from ear to ear. The accom-



Fig. 1.

ppanying figure gives an idea of the extent of the injury. The upper lids with cartilages and eyelashes remained, although deprived of skin, the right lid being torn away from the inner canthus and hanging by its outer border. A small portion of bone was exposed, but this was subsequently covered over by granulation, and no exfoliation took place. The eyes were uninjured, although the conjunctivæ suffered from the discharge of pus from the granulations above. There was considerable photophobia. Numerous attempts at grafting were made during her stay at the hospital; but these failing, owing to the free purulent discharge, she was removed to her home, where she came under the care of Dr. W. Symington Brown. From him, Dr. Warren obtained the subsequent history of the case. The wound was dressed at first with simple cerate, with the addition subsequently of a small amount of carbolic acid. Attempts at grafting were resumed by Dr. Brown in May, 1873, and were continued with success weekly, with the exception of a short interval, until November. The grafts were about the size of a turnip seed. At this time she had a pyæmic attack, and remained in a critical state for some days, during which time most of the grafts disappeared. On full recovery, however, strips of new skin made their appearance in the line of former grafting. "In January, 1874," Dr. Brown states, "we recommenced grafting,



Fig. 2.

and have continued to apply from two to fifty grafts every Sunday since that date." The process of cicatrization had, on August 5, 1874, advanced the edge of the wound one and a half inches over the occipital bone, in front of the left ear two and three quarters inches, over the right cheek three and a quarter inches. On October 4th last, the surface remaining unhealed measured eleven and a half by seven and a half inches. On several points over this surface there are islets of sound skin and many grafts which have evidently taken. The grafts have nearly all been taken from young people and children. Figure 2 shows the amount healed over at this date. The patient, Dr. Brown says, has an excellent appetite; sleeps soundly; pulse and temperature normal. She rides out occasionally and does some light work, such as sewing and embroidery.

Dr. JACKSON asked if, the external cuticle having been removed by a blister, scrapings from the true cutis were used by surgeons in skin-grafting.

DR. WARREN believed that scrapings from the skin had been dusted on granulating surfaces.

DR. CABOT said that it had been done, and with success.

DR. PORTER said that the successful use of skin scrapings had given the first hint of the possibility of skin-grafting. He referred to the case of a girl who for two and a half years had had a granulating surface, resulting from a burn, covering the right buttock and extending down the posterior aspect of her thigh as far as the knee-joint, where in six months, by means of grafting, the surface had cicatrized with the exception of a spot a few inches in diameter.

DR. CABOT spoke of a case in his service at the Massachusetts General Hospital that had been successfully treated by grafting by his house-officer, Mr. Bradford, and the patient had been discharged "well." Lately he had returned, with an ulceration in the cicatrix, grafting was again resorted to, and the ulcer healed.

DR. PORTER said that it was usually supposed that perfect quiet was necessary to the success of skin-grafting. But he had four years ago shown a man to the society with ulcer of the leg, which he had successfully treated by skin-grafting, at the same time allowing him to go to his daily work; and when last seen, two years or more afterward, the cicatrix had shown no signs of breaking down.

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## PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

JAMES R. CHADWICK, M. D., SECRETARY.

At a special meeting of the Suffolk District Medical Society, called on February 9 to give expression to the universal sorrow caused by the death of Dr. Charles G. Putnam, the following resolutions, presented by a committee consisting of Drs. G. C. Shattuck, C. E. Buckingham, H. W. Williams, G. H. Lyman, and J. B. S. Jackson, were unanimously adopted.

*Resolved*, That the Fellows of this society have heard with regret of the death of their late associate, Dr. Charles G. Putnam, and whilst they sorrow that they may not again behold the light of his countenance, they will keep his example fresh in their minds as an incentive to duty and to the pursuit of whatever is good and honorable. At the ripe age of threescore years and ten, the summons to depart found him still at the post of duty, a loyal, active, faithful member of the profession which he had adopted and studied in his youth. Ever ready and willing to serve others, holding his talents and acquirements at the command of all who needed and applied for them, skillful, kind to his patients, courteous and just as a Fellow and President of the Massachusetts Medical Society, exemplary in all the relations of life, he has been taken to his rest and his reward.

*Resolved*, That this record of our appreciation of the merits and virtues of our late associate, and of the sense of the loss we have sustained, be communicated to the bereaved family with the assurance of our heartfelt sympathy and regard.

THE PRESIDENT, DR. MINOT, in explaining his reasons for calling the meeting, alluded feelingly to the respect and love entertained for Dr. Putnam by all classes in the community. As a former president of the Massachusetts Medical Society, it was fitting that special notice should be taken of his death by the largest medical society in the city.

DR. TYLER thought this loss was one we must all deeply mourn. Dr. Putnam's independent judgment, kindliness of heart, identification of himself with the interests of his patient, were traits entitling him to universal esteem and love.

DR. BUCKINGHAM pointed out that the large attendance at this meeting, notwithstanding the inclemency of the weather, indicated that this was no ordinary ceremonial. He had known Dr. Putnam for thirty years, and had ever admired his innate modesty and sense of justice. In consultation, he never sought to shirk the responsibility of carrying out the measures which the exigencies of the case seemed to require.

DR. WILLIAMS believed that few in our time had shown themselves so incapable of selfishness or envy. His careful observation, his trustworthy consideration, his devotion to professional work, have rarely been equaled. He was always ready to promote the welfare of a professional brother, ever commending, never blaming, a wise, thoughtful, genial, gentle man. All of us must be better for the example his life has been to us.

DR. READ considered that "*De mortuis nil nisi bonum*," a sentiment often observed from charity, to-day expressed truly the feelings of all present.

DR. REYNOLDS was unwilling that one other characteristic of Dr. Putnam should be overlooked, his dexterity as an operator in obstetrical cases; yet he never failed to encourage young men to operate in his presence in cases of consultation. His devotion to suffering women, even since the failure of his own health, was strikingly exemplified on one occasion during the past summer, when he could with difficulty be dissuaded from making a long excursion into the country to take charge of a difficult case.

DR. UPHAM cited as an instance of Dr. Putnam's fidelity to his patients an incident closely connected with his death. While seated upon the doorsteps, just after the attack which proved fatal, he told his son of a patient requiring immediate attention, and requested him to visit her. These words were his last. He was true unto death.

DR. HARLOW testified to the consummate skill displayed by Dr. Putnam in many consultations to which he had summoned him during the past twenty-five years.

### THE STATE BOARD OF HEALTH AND NOXIOUS AND OFFENSIVE TRADES.

By an act of the legislature passed April 8, 1871, the State Board of Health received power to order any person, persons or corporations, who were engaged in carrying on the business of slaughtering cattle, sheep, or other animals, or of melting or rendering animal matters, or who were engaged in any other noxious or offensive trade, to cease and desist from the further carrying on of such trades or occupations, if in the judgment of the board the public health or comfort and convenience should require the abatement of such a nuisance. The only limitation which the legislature placed on the board was that their action should be limited to such cities or towns as contained more than four thousand inhabitants.

This act of the legislature met with approval of all with the exception of a few of those whose business might thereby be interfered with. One of the beneficent results of the measure may be witnessed in the daily workings of the Brighton Abattoir, where a business, formerly a nuisance to the whole neighborhood, is now carried on under such strict sanitary regulations as to be no longer a subject of complaint to the residents even in the immediate vicinity.

A few of the discontented ones, however, who felt more anxious for their own pecuniary welfare than for the sanitary welfare of their neighbors, made a great effort last year to induce the legislature to so restrict the workings of the Board of Health as practically to annul its power to regulate noxious and offensive trades. After a careful examination of the whole subject, the legislature decided to testify its unqualified approval of the past history of the board, and, instead of restricting its powers, as asked for by the petitioners, decided greatly to enlarge its sphere of usefulness by striking out the clause limiting the powers of the board to those cities and towns which had more than four thousand inhabitants.

Another effort is being made before the present legislature to induce it to pass an act by which parties whose business is deemed by the Board of Health noxious or offensive may have the right of appeal to a jury, the board acting as the prosecuting officer. It is earnestly to be hoped that the legislature will refuse to place any such check upon the powers of a board whose past history has always been such as to meet not only with the hearty approval of the inhabitants of the commonwealth but with high encomiums from those who residing at a distance, are perhaps the best judges of the efficiency of the existing laws and of the manner in which they have been executed.

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### A MOVEMENT AGAINST QUACKERY.

THE Pennsylvania State Medical Society has appointed a committee to approach the legislature in regard to the subject of laws regulating the right to practice medicine. The committee has prepared a memorial which has been

widely circulated throughout that State. The *Philadelphia Medical Times*, in calling attention to this movement, pertinently remarks, —

"It is simply astounding that whilst hedges and guards are placed by law around the inclosure within whose sacred bar are the members of the legal fraternity, any one, no matter how ignorant he, she, or it may be, can practice medicine in this State at will. . . .

"We are most strongly in favor of some legislation which shall check this unbridled license, for which, it may be thought, not the medical but the legislative profession is chiefly to blame. The medical profession, however, shares the responsibility. It is in a measure owing to its supineness in the past that murder stalks in the guise of philanthropy through every by-way of our commonwealth, and enters not rarely even the palaces of the rich. Let the committee bring this memorial and its subject before our legislators in such a way that they must pause from party wrangling to grant a serious hearing; and then, if no good results, our skirts will be clear."

Would that a similar movement could be inaugurated in our own State!

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#### SCARLET FEVER PRESERVES.

THE London *Practitioner* calls attention to the prevalence of scarlet fever at present existing in Great Britain. To such an extent has it increased that the title of "English Plague" has been justly applied to it. During the twenty-one years 1851-71 it killed on an average 18,400 persons yearly. It is found, as would be supposed, that the districts of excessive mortality were those containing the great urban populations. The whole of the districts of continuous excessive mortality during the twenty years 1851-70, regarded topographically, do not appear to exceed twenty-three in number. These districts contain an aggregate population of about 11,000,000 — that is to say half the population of England.

In these districts the infection is never absent; a continuous succession of it is maintained there from month to month and from year to year. During its epidemic developments it readily spreads beyond these limits and infects other districts, which in ordinary times are free from the disease. These districts may, then, be looked upon in the light of *preserves*. It is of the utmost importance, under these circumstances, that proper measures should be taken to suppress the disease in these centres. We are somewhat surprised to learn that little has hitherto been done in this direction, and that in London alone provision is being made for the isolation in hospitals of scarlet fever cases, and for the disinfection of infected premises.

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#### ASPIRATION IN PLEURISY.

THE question as to the use of the pneumatic aspirator in pleurisy has of late been discussed by Dr. Becker, of Munich. In cases where the operation is one of necessity for the preservation of life, there can, of course, be no question as to



its propriety; but in most cases of pleurisy with sero-fibrinous effusion, Dr. Becker is decidedly opposed to aspiration of the fluid. Even where the pleural cavity is so full that the heart is much displaced, as long as the respiration and circulation are not disturbed he would leave the cure to nature. He contends that when the fluid has reached a certain amount effusion ceases, and the current setting in an opposite direction, towards the vessels, the cavity is gradually emptied, and contraction and adhesion occur in due order. Nature spontaneously limits the amount of effusion by compressing the root of the collapsed lung, and thus so far arresting the circulation in the vessels of supply. If the physician interferes with this normal course of affairs, and removes the fluid before the pressure in the pleural cavity has reached a certain height, he will simply restore the circulation in the pulmonary vessels, reestablish the conditions of effusion, bring the rough surfaces of the pleura into frictional contact, and have robbed the system of so much precious fluid.

Dr. Becker considers the circumstances even more serious when the collapsed lung is adherent. Should aspiration then be performed the fluid speedily refuses to flow, the tube collapses, and air forces its way around the needle into the chest. Worse still, the lung expanding unequally may undergo alveolar dilation; it becomes hyperemic, hæmoptysis may occur at once, and bronchitis and pneumonia supervene. Less serious reasons for letting nature alone in sero-fibrinous pleurisy without urgent symptoms are the facts that the risk of sudden death from fatty heart, which is present in such cases, is not removed by operation; that marasmus is not relieved by it; and that fresh pleurisy often comes on, and the chances of empyema increase with every tapping.

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#### MEDICAL NOTES.

— The regular meeting of the Obstetrical Society of Boston, which was to have occurred last Saturday evening, was omitted out of respect for the memory of the late Dr. Charles G. Putnam; the society was to have met at his house.

— In cases of dropsy of the joints, especially that of the knee, Dr. Bergeret finds the continued application of bags of hot sand to answer better than any other kind of treatment. When the acute stage is passed, and whatever may be the cause of the dropsy, he wraps the joint in a thick layer of cotton-wool, and applies to this a sack containing two or three litres of fine and very hot sand. The dropsy disappears in a few days. The sand must be very hot, and the heat may be kept up by means of covering with a blanket. The sand must not be too thick in the bag, so that it may extend easily on the knee, and overhang the hydrarthrosis in every direction.

— Dr. Paul F. Munde, in a letter to the *New York Medical Record*, calls attention to Hoenig's method of removing the ovum in cases of abortion. Hoenig recommends to express the ovum, either entire or in part, if the fœtus be already removed, by means of bi-manual compression, two fingers of one

hand being introduced into the vagina, and passed as far up as possible into the fornix vaginae, the other hand grasping the uterus through the abdominal parietes, thus firmly compressing the organ between the fingers of both hands, and slowly and surely expelling its contents. If the uterus is anteverted or anteflexed, as usual during the earlier months of pregnancy, the two fingers should be passed into the anterior cul-de-sac, or the corpus uteri may be firmly pressed against the symphysis pubis by the external hand alone (the bladder having been emptied). If the uterus is retroflexed, the two internal fingers go behind the cervix. Of course, it is essential that the cervix be sufficiently dilated before this method is attempted.

— Dr. Samuel W. Francis, Fellow of the New York Academy of Medicine, has recently published pamphlet No. 3 of his medical series. It contains short articles on the term "syphiline" to indicate the syphilitic poison, on a glass glove or boot for the treatment of sprains or burns, on "Self-Opening Coffins and an Alarm Telegraph," etc. The longest paper is entitled *Man and Nature*; from it we abstract this paragraph: "It is my firm conviction that the mosquito was created for the purpose of driving man from malarial districts; for I do not believe that in nature any region where chill and fever prevail can be free from this little animal. Now if man will not go after warning is given in humming accents, then the mosquito injects hypodermically a little liquid which answers two purposes: firstly, to render the blood thin enough to be drawn up through its tube; and secondly, in order to inject that which possesses the principles of *quinine*!"

— A correspondent writes to us as follows: "Why is it that medical schools are so far behind the times? Why are medical degrees given away so freely? The value of a thing is generally estimated by the time and labor required to obtain it; if this be the case, an M. D. is not worth as much and is not so respectable as a horse-doctor's degree (D. V. S.). To obtain the former, one has to spend a year at a medical school and make the faculty believe that he has opened a medical book once in a while during the last three years; to get the latter, one has to study six years at a good school. Still we think ourselves better than horse-doctors. The medical schools think too much of patronage. It seems as if their object is rather to make money than to increase the value of the degree. A degree of M. D. should be made as honorable as that of Ph. D. or of Sc. D. Why should not students be obliged to pass a preliminary examination? Harvard should lead off in improvements. The school that does lead off will eventually receive the most patronage."

— An ice-inspector has been appointed in London, whose duty is to examine and certify to the safety of the ice in the public parks.

— The physicians of eastern Middlesex, in this State, have done a very commendable thing in formally urging upon the town authorities, the local boards of health, and the school committees of their section, the necessity of making and enforcing "such rules as will prevent the attendance in the public schools of any child residing in a family where there is, or has been, a case of measles, scarlet fever, or whooping-cough, until the physician in attendance on such case of disease shall have furnished a certificate that in his opinion the period

of danger from infection is past, and that he knows that the infected premises have been thoroughly disinfected."

— The Edinburgh correspondent of the *British Medical Journal* states that the new university buildings are to cost one hundred and fifty thousand pounds. He also states that some time ago Dr. Bell's trustees offered to the University of Edinburgh the sum of six thousand pounds towards the endowment of a chair of the theory and practice of education. Subsequently a joint memorial was presented to government by the trustees and the senatus, praying for a grant of the rest of the money necessary to its adequate endowment. A communication has been received this week intimating that the government are willing to accede to this request. The sum the government intend giving is five thousand pounds, which will bring up the endowment of the chair to eleven thousand pounds, equal to an annual stipend of four hundred and forty pounds. This is a far higher endowment than goes with most of the chairs in the university, particularly those of the medical faculty. The appointment of a professor will be made forthwith, so that he may begin his course next session.

— Mackay's omphalic mustard plasters or leaflets consist of disks about the size of a sixpence, attached to small sheets of a light and transparent material. These are four and a half inches by three and a half, and have each twenty spots. They are merely to be dipped in water and applied. By leaving them on for a longer or shorter time, any required amount of effect may be attained, from a glow of redness to actual blistering. The spot principle, too, seems quite in accordance with nature's own efforts to relieve internal congestion and inflammation, as in the various rashes which from time to time appear on the body. It is well known that the appearance of such is attended with much relief from suffering. The same principle has been applied to fly-blisters. The spots are of three sizes, but those most recommended are small, — four tenths of an inch, — and eighty-five of them on a sheet six inches square. They occasion a crop of vesicles, which appear in regular order, having intervals of unblistered skin between. What renders common blisters so painful is the denudation of a large continuous surface of the sensitive skin. The spot plan entirely does away with this, leaving as it does sound intervals between the vesicles, and making it an easy matter to heal them up when this is wished for. By removing the cuticle and applying a drawing ointment, the counter-irritant effect is kept up, and may be intensified as much as is deemed desirable.

— According to the *London Medical Record* the number of medical men in France seems to remain stationary. In 1847 there were 10,643 practitioners, or one to every 3244 inhabitants. In 1866 there were, taking in the annexed departments, 11,525, still, by a singular coincidence, averaging one to the same number of inhabitants above cited. In 1872 when Alsace and Lorraine were lost to France, there were only 10,766 doctors, or one to each 3353 inhabitants. This dearth of medical assistance is attracting considerable attention in France, and is likely before long, according to the *Revue Scientifique*, to become the subject of legislative interference. The unequal distribution of the available number of medical practitioners renders the situation all the more

serious; for instance, in the department of the Seine there is a doctor to every 1115 inhabitants, whilst in the department of the Morbihan there is only one to each 10,576 of the population; a scarcity of medical aid which is surpassed in the case of one department which rejoices in the medical care of one practitioner only for 11,000 people.

## SURGICAL OPERATIONS AT THE MASSACHUSETTS GENERAL HOSPITAL.

[SERVICE OF DRS. BIGELOW AND CABOT.]

OPERATIONS were performed under ether in the following cases during the week ending January 30:—

1. Hydrocele. 2. Necrosis of tibia. 3. Tumor of arm. 4. Stricture of urethra. 5. Enlarged tonsils. 6. Phimosis. 7. Ingrowing toe-nail. 8. Crushed hand; amputation of fingers. 9. Necrosis of phalanges; amputation of fingers. 10. Cancer of lip. 11. Ranula. 12. Foreign body in throat (pin); extracted. 13. Abscess; six cases. 14. Felon.

4. *Stricture of Urethra.*—Of traumatic origin and ten years' duration, in a man twenty-five years old. He had suffered from repeated attacks of retention, which had been relieved by the catheter. The stricture admitted a capillary bougie; with this as a guide, Dr. Bigelow passed the divulsor of Voillemier and ruptured the contracted urethra. A No. 12 elastic catheter was then passed into the bladder and left. Dr. Bigelow remarked that he believed it better, in this and other operations exposing the tissues to urine, to protect the raw surface for a few days from the urine, by leaving an elastic catheter in the bladder until the denuded tissues are consolidated and protected by inflammatory product. He was unable to see any objection to this expedient, which has obvious advantages. One thing, however, was important: attendants instinctively plug the catheter to regulate the flow of urine; the latter was then forced by the side of the catheter against the lacerated tissues, so that the presence of the instrument is a serious detriment. The surgeon should remember to attach to its orifice an unobstructed elastic tube leading to a vessel upon the floor. The instrument should also be of full size.

6. *Phimosis.*—The patient was a negro. Dr. Bigelow remarked that the double disk of skin and mucous membrane should be excised not transversely but obliquely, parallel to the corona glandis. The mucous layer, when turned back, would then lie so exactly in apposition with the skin that stitches might seem superfluous. But the œdema which soon ensues makes them necessary to keep the parts together; or, better than stitches, serres fines, which can be removed painlessly on the second day. One point he believed was new: to avoid the tenderness about the frænum, which is the sorest part of the wound, he had been in the habit of leaving this part of the prepuce, unless very exuberant, untouched. The œdema disappears in a month or two.

The operation then consists in removing from the dorsal aspect of the gland an oval disk, and with it about three quarters only of the preputial orifice.

H. H. A. BEACH, M. D., Surgeon to Out-Patients.

## SURGICAL OPERATIONS AT THE BOSTON CITY HOSPITAL.

[SERVICE OF DR. CHEEVER.]

THE following operations were performed during the week ending Friday, February 5, 1875:—

1. Carbuncle. 2. Deep abscess of the neck. 3. Amputation of finger.
4. Amputation of toes for frost-bite. 5. Plugging the posterior nares.

1. *Carbuncle.*—The patient was fifty-five years old, and had had the carbuncle three months. He was very much prostrated when admitted to the hospital. He could take food but poorly, and he lay in a sort of semi-conscious state.

The carbuncle began over the upper part of the right scapula, and had extended down the back to the right axilla, and across to the left side of the spine, so that it measured fifteen inches in its shortest diameter. The tissues were sloughing in the centre, and boggy and oedematous about the margins. Dr. Cheever scored the central portions of the carbuncle subcutaneously with a curved bistoury, giving exit to considerable pus and sloughy tissue. Hæmorrhage was prevented by a firm bandage over a compress of sponges. The patient sank, and died from exhaustion in about twelve hours.

This was a remarkable example of a neglected carbuncle, showing that nature was unable to prevent or repair so much mischief without assistance. With proper treatment at the commencement of the affection, his chances for a recovery would certainly have been very much better.

5. *Epistaxis; Plugging of the Nares; Death.*—This case is mentioned on account of its complications and fatality.

A young man was brought to the hospital in a very feeble, anæmic state. He had had nose-bleed for three days. A slight attack, soon after his admission, resulted in syncope.

Dr. Cheever plugged the posterior and anterior nares on both sides. Hæmorrhage ceased, but blood was soon found to be trickling from the right ear. There had been no previous injury. The sponges were left in sixty hours, during which time there was no nose-bleed. The ear, however, bled occasionally. The patient was well nourished, moderately stimulated, and given the tinctura ferri muriatis in full doses. On removing the sponges, both nares bled freely; when this was checked by styptics, the ear bled again. The following evening the patient rose up in bed, ejected from his mouth or throat a large quantity of blood, fell back, and died. There was no autopsy. No history of a previous disease was given; there was no purpuric eruption. The case must be set down as one of "hæmorrhagic diathesis."

GEO. W. GAY, M. D.

## ON THE PITTING FROM SMALL-POX.

MESSRS. EDITORS, — Although the mortality from variola has been reduced by vaccination to a percentage which closely corresponds to some of the other less dreaded and less vicious acute fevers, there yet remains an indication in its treatment which has defied the sagacity and ingenuity of the physicians of all times, and concerning which the opinions of to-day are apparently as unsettled as they were five hundred years before Christ. Having heard so many physicians at home express their confidence in the efficacy of certain prophylactic measures against pitting, although all measures may appear futile in many cases, I was desirous to learn the experience and views of Professor Hebra, of Vienna, in regard to this subject.

In his work upon skin diseases, which is at present in process of publication, Professor Hebra enumerates several of the many emplastra, unguenta, etc., which have been recommended for the object in discussion, and which he himself has thoroughly tested. He then declares that cicatricial formations are in no degree and in no case prevented by such applications. An eruption of small-pox is an association of small, suppurating centres (abscesses) which are situated in the skin. The amount of damage which they will do to the skin, and the amount of deformity which will thereby result, depend wholly and solely upon the depth in the skin at which each given efflorescence is situated. A pustule situated in the Malpighian layer will leave no record of its existence, however much it be neglected, while the same pustule deeper seated, and involving the papillary layer, or corium proper, will leave a scar in spite of every effort to prevent it. The apparent efficacy of the many medications which have been so highly extolled is explained by Professor Hebra by deductions from his study of the natural history of small-pox eruptions, — assuming that only those pustules can pit which involve the papillary or lower layers of the skin. He further declares that from every one hundred individuals, who have had variola vera, scarcely fifty bear scars. In other words, fifty per cent. of small-pox eruptions, even when allowed to run their natural course unaided by any medication, heal without pitting. The fact that the trunk, arms, and legs are more exempt from pitting than the face is not attributed by Professor Hebra to the exemption of the former from the influence of light, in that they are constantly covered with clothing, while the face is as constantly exposed, but he explains the fact on the following grounds: —

First, there are, as a rule, more pustules upon the face than upon any other portion of the body having the same area as the face. Not every pustule leaves a mark, but a certain proportion of them are likely to do so. That portion of the body, consequently, which has on a given area the largest number of pustules will probably, *ceteris paribus*, bear the largest number of scars.

Secondly, two abscesses which are situated in immediate proximity to each other mutually intensify each other's virulence, and thereby generate an inflammation which is more active and more extended in its influence than would be the case if the abscesses were widely separated from each other. A small-pox eruption is a collection of small abscesses which, being more numerous on the face, are necessarily more closely associated, and hence incite each other to a



greater devastation than on the body, where, as a rule, they are not so closely packed.

Thirdly, the sebaceous follicles upon the face, and particularly upon the nose and adjacent portions of the cheeks, are larger and more numerous, and the interfollicular partitions are consequently thinner than on the body. These narrow, interfollicular partitions of the face are less able to resist the destructive aggressiveness of a pustule than the broad, roomy partitions elsewhere; and hence the more superficial layers of the former partitions are much more likely to be destroyed than the corresponding parts in the latter. But destruction of these partitions during the efflorescent stage of variola means cicatrization and disfigurement in recovery.

Thus we have three factors favoring greater disfigurement of the face than of the body: the plurality of eruptions upon a given area; the greater intensity of the same; and the structural inferiority of the skin of the face as regards its ability to resist the encroachments of the pustule.

Although Professor Hebra so emphatically disclaims any belief in the efficacy of external applications against pitting, he nevertheless employs them in his practice at the present time; but he employs them solely with a view either to facilitate the early evacuation of the pustule, and thereby anticipate purulent resorption and pyæmic consequences, or to ameliorate the subjective symptoms of discomfort which a patient experiences during an eruption of small-pox. He considers that the secondary fever of small-pox, which usually begins on the seventh and reaches its height on the eleventh day of the sickness, is caused by a resorption of the decomposing contents of the pustules, and hence he terms it a pyæmic fever. To prevent this casualty, he recommends the early evacuation of the pustules. But direct opening of the pustules by puncture or caustic is painful and dangerous to the patient, and is inapplicable to confluent forms of the disease. Having observed that the efflorescences upon mucous membranes never attain the same development and purulency as those on the skin, he attributes it to the fact that the mucous membranes are constantly macerated by their own secretions, and that thereby the pustules become more readily emptied of their contents. Acting upon this hint, he accordingly applies simple macerating agents, such as wet cloths, ointments, etc., to the surface of the body.

Although, as he confesses, his efforts in this direction have not accomplished all that he desired, he has nevertheless learned that the subjective condition of the patient may be greatly improved, even by so simple an application as cloths wet in water. The presence of the numerous pustules in the thick skin, especially on the palms of the hands and the soles of the feet, is a source of great irritation to the patient, but this irritation can be greatly diminished by constant maceration of the skin.

External dressings, therefore, ameliorate the discomforts of an eruption, but do not, according to Professor Hebra, in any way essentially modify its results, and no particular matter or manner of dressing can claim any efficiency against pitting until it can show statistically, and for a large number of cases, that its application reduces the per cent. of pitting below fifty, which is the highest per cent. attained by the disease itself, when left to its own course.

Yours very truly,

G. M. GARLAND.

VIENNA, January 4, 1875.

## WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending February 13, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State:—

In Berkshire: influenza, bronchitis, pneumonia, and rheumatism. An unusual number of typhoid cases are reported.

In the Connecticut Valley: bronchitis, influenza, pneumonia, and rheumatism.

In Worcester County: bronchitis, influenza, pneumonia, measles, rheumatism, and scarlatina. Measles and scarlatina show a decided increase in prevalence. Small-pox is reported on the increase in the Blackstone Valley, and it appears to be extending northward.

In the Northeastern section (Middlesex and Essex): influenza, bronchitis, pneumonia, scarlatina, and rheumatism. Measles and whooping-cough have subsided. A case of cerebro-spinal meningitis in Lynn is reported.

In the Metropolitan section: bronchitis, influenza, measles, pneumonia, rheumatism, and scarlatina. Except scarlatina, all these diseases show a tendency to diminished prevalence.

In the Southeastern counties: bronchitis, influenza, pneumonia, rheumatism, and whooping-cough.

In Dukes and Nantucket: bronchitis and influenza.

The order of relative prevalence of the foregoing diseases in the State at large is as follows: influenza, bronchitis, pneumonia, rheumatism, scarlatina, measles, whooping-cough. It will be observed that diseases of the respiratory organs maintain their place at the head of the list, coincidently with the prolonged cold.

If we compare the present with last week, we find scarlatina has increased in prevalence, while all the other diseases have subsided somewhat or remain as in the last report.

Scarlatina is most prevalent in Middlesex and Essex; measles, in Boston and its suburbs; diphtheria, in the Connecticut Valley; whooping-cough, on the Cape.

F. W. DRAPER, M. D., Registrar.

## COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING FEBRUARY 6, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-rate per 1000 during Week.
New York . . . . .	1,040,000	600	30
Philadelphia . . . . .	775,000	333	22
Boston . . . . .	350,000	173	26
Providence . . . . .	100,000	38	20
Worcester . . . . .	50,000	19	20
Lowell . . . . .	50,000	21	22
Cambridge . . . . .	44,000	33	39
Fall River . . . . .	34,200	16	24
Lawrence . . . . .	33,000	18	28
Springfield . . . . .	33,000	9	14
Lynn . . . . .	28,000	12	22
Salem . . . . .	26,000	10	20